

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An ink set comprising plural inks for inkjet, each one of the plural inks having a maximum absorption wavelength of one of from 500 to 580 nm and from 580 to 680 nm in an aqueous medium and a different absorbance,

wherein based on an absorbance of a dye or a combination of dyes in an ink, which has a maximum dye concentration out of the plural inks, an absorbance of a dye or a combination of dyes in all another ink excepting the ink having a maximum dye concentration is from 1/20 to 1/2, and

wherein

when each one of the plural inks has a maximum absorption wavelength of from 500 to 580 nm in an aqueous medium, at least one of the plural inks having a maximum absorption wavelength of from 500 to 580 nm includes an azo dye having a chromophore represented by the following formula:

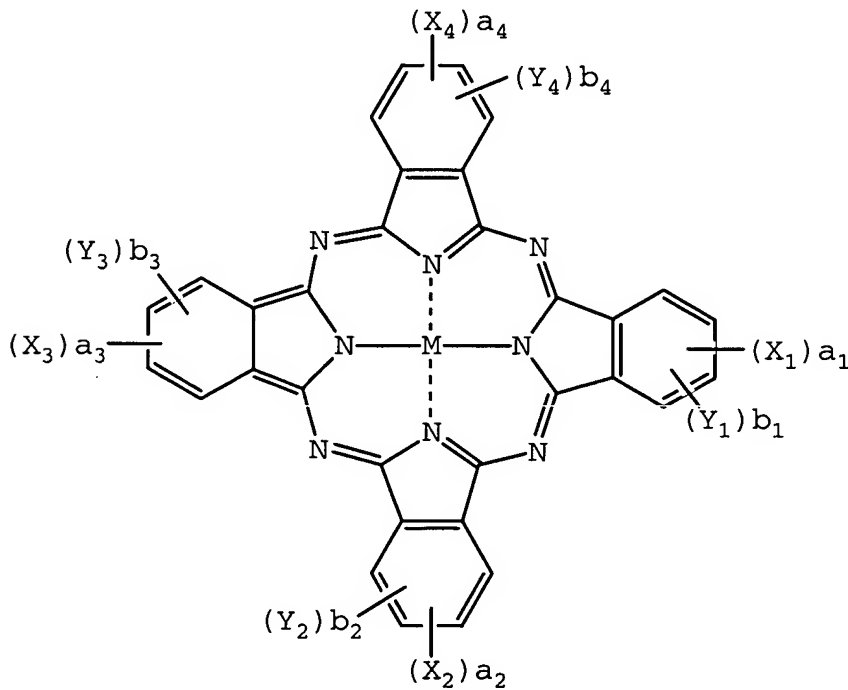
$[(\text{heterocyclic ring A})-\text{N}=\text{N}-(\text{heterocyclic ring B})]$

wherein the heterocyclic ring A and the heterocyclic ring B are the same or different, and the azo dye having a chromophore represented by the formula

[(heterocyclic ring A)-N=N-(heterocyclic ring B)] is a colorant having an oxidation potential of more positive than 0.7 V (vs SCE); and

when each one of the plural inks has a maximum absorption wavelength of from 580 to 680 nm in the aqueous medium, at least one of the plural inks having a maximum absorption wavelength of from 580 nm to 680 nm includes a dye represented by the following formula (I) and the dye represented by formula (I) is a colorant having an oxidation potential of more positive than 1.0 V (vs SCE):

Formula (I):



wherein X₁, X₂, X₃ and X₄ each independently represents -SO-Z, -SO₂-Z, -SO₂NR₁R₂, a sulfo group, -CONR₁R₂ or -CO₂R₁, and at least one of X₁, X₂, X₃ and X₄ is -SO₂-Z or -SO₂NR₁R₂ wherein Z represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted

aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, and R₁ and R₂ each independently represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, provided that when multiple Zs are present, these may be the same or different,

Y₁, Y₂, Y₃ and Y₄ each independently represents a monovalent substituent, provided that when multiple X₁s, X₂s, X₃s, X₄s, Y₁s, Y₂s, Y₃s or Y₄s are present, these may be the same or different,

a₁ to a₄ and b₁ to b₄ represent the number of substituents of X₁ to X₄ and Y₁ to Y₄, respectively, a₁ to a₄ each independently represents 0 or an integer of 1 to 4 but all are not 0 at the same time, b₁ to b₄ each independently represents 0 or an integer of 1 to 4, and

M represents a hydrogen atom, a metal atom or an oxide, hydroxide or halide thereof.

2. (canceled).

3. (currently amended): The ink set for inkjet recording as claimed in claim 21, wherein out of dyes contained in an ink having a maximum dye concentration in the plural inks constituting the ink set, a dye having a maximum absorbance is an azo dye having a chromophore represented by the following formula:

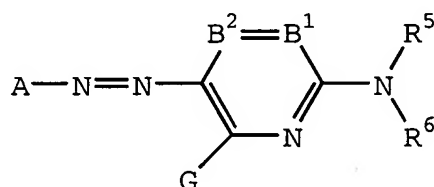
[(heterocyclic ring A)-N=N-(heterocyclic ring B)]

wherein the heterocyclic ring A and the heterocyclic B may have the same structure.

4. (canceled).

5. (currently amended): The ink set ~~for inkjet recording~~ as claimed in claim ~~2~~ 1, wherein the azo dye having the chromophore represented by the formula [(heterocyclic ring A)-N=N-(heterocyclic ring B)] is a dye represented by the following formula (1):

Formula (1):



wherein A represents a 5-membered heterocyclic group;

B¹ and B² each represents =CR¹- or -CR²= or either one of B¹ and B² represents a nitrogen atom and other represents =CR¹- or -CR²=;

R⁵ and R⁶ each independently represents a hydrogen atom or a substituent, the substituent is an aliphatic group, an aromatic group, a heterocyclic group, an acyl group, an alkoxycarbonyl group, an aryloxy carbonyl group, a carbamoyl group, an alkylsulfonyl group, an arylsulfonyl group or a sulfamoyl group, and the hydrogen atom of each substituent may be substituted;

G, R¹ and R² each independently represents a hydrogen atom or a substituent, the substituent is a halogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group, a carboxyl group, a carbamoyl group, an alkoxycarbonyl group, an aryloxycarbonyl group, a heterocyclic oxycarbonyl group, an acyl group, a hydroxy group, an alkoxy group, an aryloxy group, a heterocyclic oxy group, a silyloxy group, an acyloxy group, a carbamoyloxy group, an alkoxycarbonyloxy group, an aryloxycarbonyloxy group, an amino group, an acylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonylamino group, an aryloxycarbonylamino group, an alkylsulfonylamino group, an arylsulfonylamino group, a heterocyclic sulfonylamino group, a nitro group, an alkylthio group, an arylthio group, a heterocyclic thio group, an alkylsulfonyl group, an arylsulfonyl group, a heterocyclic sulfonyl group, an alkylsulfinyl group, an arylsulfinyl group, a heterocyclic sulfinyl group, a sulfamoyl group or a sulfo group, and the hydrogen atom of each substituent may be substituted; and

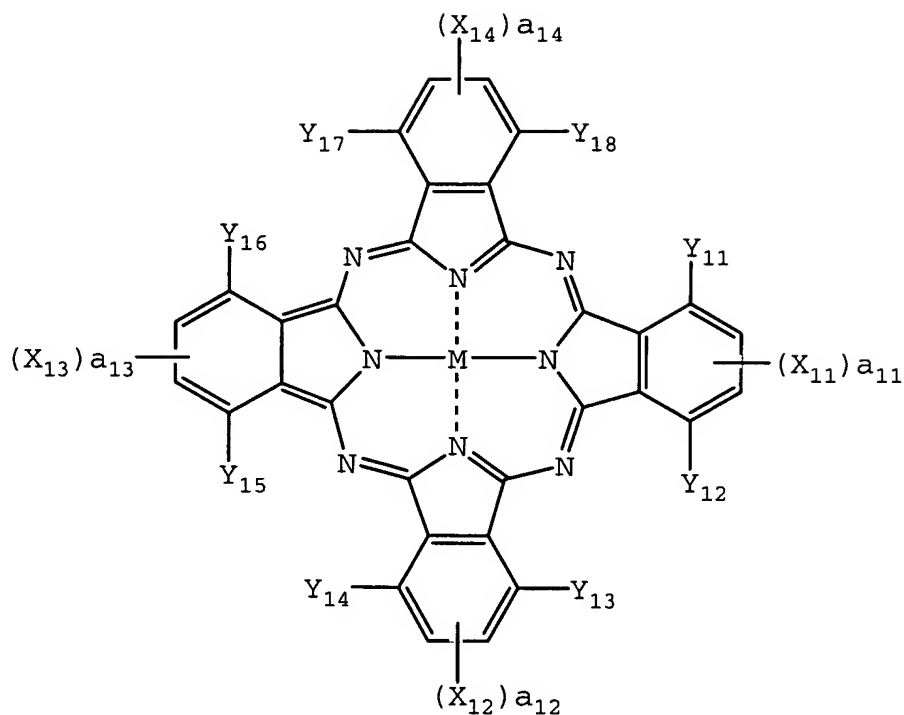
R¹ and R⁵, or R⁵ and R⁶ may combine to form a 5- or 6-membered ring.

6. (canceled).

7. (canceled).

8. (currently amended): The ink set ~~for inkjet recording~~ as claimed in claim ~~7~~1, wherein the dye represented by formula (I) is a dye represented by the following formula (II):

Formula (II):



wherein X_{11} to X_{14} , Y_{11} to Y_{18} and M have the same meanings as X_1 to X_4 , Y_1 to Y_4 and M in formula (I), respectively, and when multiple X_{11} s, X_{12} s, X_{13} s and X_{14} s are present, these may be the same or different,

Y_{11} to Y_{18} each independently represents a hydrogen atom, a halogen atom, a cyano group, a carboxyl group or a sulfo group, and

a_{11} to a_{14} each independently represents the number of substituents of X_{11} to X_{14} , respectively, and each independently represents an integer of 1 or 2.

9. (canceled).

10. (previously presented): An inkjet recording method, which uses the ink set as claimed in claim 1.

11. (canceled).

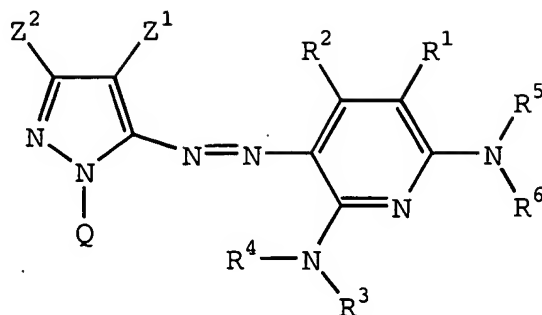
12. (canceled).

13. (previously presented): The inkjet recording method as claimed in claim 10, wherein an image is recorded by ejecting ink droplets according to recording signals on an image-receiving material, which comprises a support and an image-receiving layer containing an inorganic white pigment particle on the support.

14. (original): The inkjet recording method as claimed in claim 13, wherein the image-receiving layer comprises the inorganic white pigment particle and at least one aqueous binder selected from polyvinyl alcohol, silanol-modified polyvinyl alcohol, starch, cationized starch, gelatin, carboxyalkyl cellulose, casein and polyvinylpyrrolidone.

15. (new): The ink set as claimed in claim 5, wherein the dye represented by formula (1) is a dye represented by formula (1a):

Formula (1a):



wherein R¹, R², R⁵ and R⁶ have the same meanings as in formula (1) in claim 5,

R⁵ and R⁴ each independently represents a hydrogen atom or a substituent and the substituent is an aliphatic group, an aromatic group, an heterocyclic group, an acyl group, an alkoxycarbonyl group, an aryloxy carbonyl group, a carbamoyl group, an alkylsulfonyl group, an arylsulfonyl group or a sulfamoyl group,

Z¹ represents an electron-withdrawing group having a Hammett's substituent constant σ_p value of 0.20 or more,

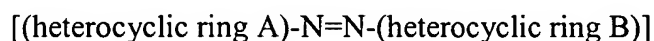
Z² represents a hydrogen atom or a substituent and the substituent is an aliphatic group, and aromatic group or a heterocyclic group, and

Q represents a hydrogen atom or a substituent and the substituent is an aliphatic group, an aromatic group or a heterocyclic group.

16. (new): The ink set as claimed in claim 8, wherein Y₁₁ to Y₁₈ of formula (II) each is a hydrogen atom.

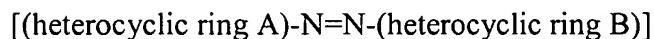
17. (new): The ink set as claimed in claim 1, wherein out of dyes contained in an ink having a maximum dye concentration in the plural inks constituting the ink set, a dye having a maximum absorbance is one of:

an azo dye having a chromophore represented by the formula:



wherein the heterocyclic ring A and the heterocyclic ring B may have the same structure; and a dye represented by the formula (I).

18. (new): The ink set as claimed in claim 1, wherein at least one of the azo dye having a chromophore represented by the formula:



wherein the heterocyclic ring A and the heterocyclic ring B may have the same structure; and the dye represented by the formula (I) is a water-soluble dye.